USER STORY

Dashboard Streamlines Local Government Operations in Baton Rouge, Louisiana

As one of the fastest-growing metropolitan regions in the nation, Baton Rouge, Louisiana, has been described as a "mid-sized city with big-city problems." The Louisiana capital faces significant challenges such as traffic, violent crime, and severe weather events.

Information Services (IS), a department of the City of Baton Rouge-Parish of East Baton Rouge, delivers IT services and technology for innovative solutions. Its goal is to help create a more effective and responsive government for the city's expanding population.

The IS department recently helped city officials approach a significant challenge: to improve the handling of service requests from residents. Baton Rouge public officials needed better tools for visualizing and filtering the thousands of citizen service requests they receive on a monthly basis. The Information Services GIS team was called on to create a dynamic dashboard to simplify data analysis and viewing.

"Our vision for our GIS program is to extend GIS and its capabilities to benefit not only our local government but [also] our entire community," says Warren Kron, GISP, GIS manager, City-Parish Department of Information Services.

CITY OF BATON ROUGE
PARISH OF EAST BATON ROUGE

BR

Challenge

The Information Services GIS team consists of nine GIS staff members who support all City-Parish agencies with a variety of requests, including survey administration, data analysis, and custom maps. With an increasing amount of citizen service requests, city officials asked the GIS team for a better way to manage and view the large amount of data.

The GIS team worked with programmers to spatially enable the 311 call data, which includes resident-reported issues like potholes, tall grass, or solid waste pickup. However, the real challenge involved developing a comprehensive solution that would simplify how city officials could display the data in a desktop application to improve the way information is communicated in public meetings.

The GIS team also sought a better way to relay the open data to the public. The City of Baton Rouge has executed a strong open data initiative to increase transparency, and Information Services has published hundreds of datasets for the public. This open data solution needed to enhance the user experience by providing location-based information with easy-to-use filtering tools, allowing users to answer their own questions.

User
Baton Rouge, Louisiana

Challenge
Manage and view large amounts of data coming in via 311 citizen service requests

Solutions
Operations Dashboard for ArcGIS

Results
A dashboard that presents data in an easy-to-read format, increasing transparency and improving communication

Solution

After examining other data management solutions, the GIS team decided to create a dashboard. Using Operations Dashboard for ArcGIS, they were able to aggregate many datasets and display the information in a single application. Operations Dashboard for ArcGIS enables users to create a dynamic dashboard to view data and key performance indicators. Information Services initially began using this tool for emergency operations and response but recognized its

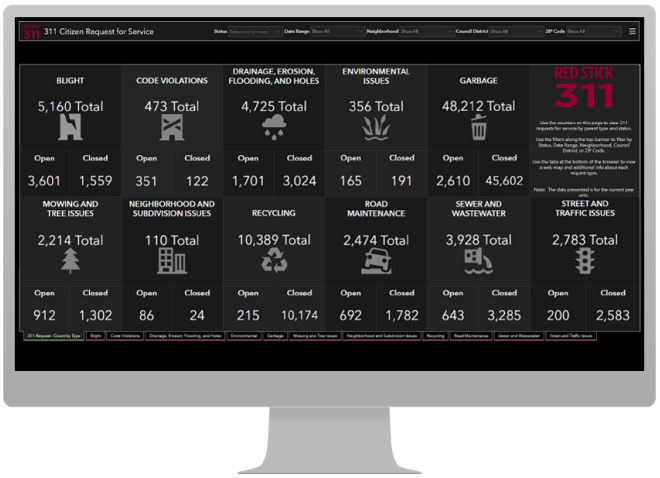
potential to support other business workflows such as 311 data visualization and analysis.

The 311 dataset provided by Information Services includes all service requests received from the City-Parish 311 Call Center, including ones made online and through the 311 mobile application. The 311 calls are recorded in a database and transferred to their GIS environment for analysis.

The GIS team took this tabular data, spatially enabled it, and created a 311 dashboard that presents the information in an easy-to-read format using a combination of interactive maps, pie charts, and bar graphs. Upon opening the 311 dashboard, the initial view displays a count of all open, in-progress, and closed tickets by their parent category, such as blight, drainage, or transportation, enabling a simplified view of all cases.

Users can apply filters to view data in specific neighborhoods or a particular type of 311 request, as well as by request status, date range, council district, or ZIP code. A parent category map will update when the user selects the pie slice related to a subtype. Selecting an individual service request provides the user with detailed information related to the reported issue.

"Our dashboards are powerful, but they're driven by the hard work of Information Services [staff] who intake and manage data," says Brandon Jumonville, senior GIS analyst with Information Services. "The meaningful data in Operations Dashboard for ArcGIS will help inform decisions and inform the public."



This dashboard allows citizens to view counts of open and closed 311 requests for service by parent type and status.

Results

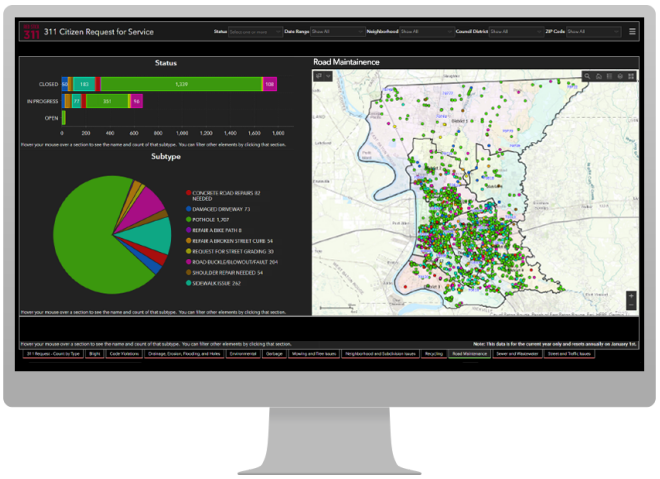
From increasing transparency to improving communication, the GIS team and Information Services as a whole have seen significant benefits with Operations Dashboard for ArcGIS. Jumonville says the ability to graphically and visually provide information to stakeholders and the public has made a more "meaningful impact," as it's much easier for

people to understand the 311 information and what's occurring in their city. Previously, data was only available in a tabular format.

"Operations Dashboard for ArcGIS lets us take our open data and present it in a new, more useful way for city officials, law enforcement, and the public," says Kron.

The filtering capability in the 311 dashboard has improved the user experience, allowing users to view only the information they want in a user-friendly format. In a map, users can simply find and select service requests around their house to view associated information and not have to search thousands of records in a table.

"I think that's the power the dashboard provides. Most citizens or policymakers may not be familiar with GIS data," says Jumonville. "The 311 dashboard provides a broad overview, but then allows users to easily filter the data to see what is meaningful and relevant to them. It's an easy system for users whose GIS knowledge varies widely."



Stakeholders can take a closer look at each type, for example, this tab shows all open, in progress, and closed road maintenance requests.

Another benefit of the 311 dashboard is that there are enough basic analytical tools for users to answer spatial questions on their own without having to make requests of the GIS team to analyze the data.

"Operations Dashboard has rapidly evolved from when we initially started using it. We have basically automated the work of an analyst using this tool," says Kron. "It's made it easier for our GIS analysts to configure our data in a user-friendly format."

The response from citizens has been very positive. Kron explains that after presenting the dashboard to neighborhood groups, city residents have been amazed that so much information is available to them for free. He says it has been a "win-win for us and the public," which has helped the local government build public trust and increase transparency.

Neighborhood associations are now using the 311 dashboard to provide details on what's happening in their neighborhoods, and local

universities are utilizing the open data for research. Additional dashboards are continually being created, too, including several for the Public Safety Common Operational Platform, also known as PSCOP. This secured ArcGIS Online platform gives law enforcement personnel access to near real-time data and helps them identify crime trends and patterns and better track officers in the field.

Overall, the promising uses of Operations Dashboard for Baton Rouge are expanding rapidly. "Operations Dashboard for ArcGIS has given our city access to information, increased data sharing and transparency in our operations, and provided different toolsets for people that never had it before. We are excited for all of the possibilities moving forward," says Kron.

Operations Dashboard

/